

LCR Meter BS Home Calibration Test

Test Frequency:					
Test Frequency	Test Limits	ST2832 Result		ST42 Result	
20 Hz	19.99 - 20.01	19.999			
50 Hz	49.99 - 50.01	49.999			
100 Hz	99.99 - 100.01	100		99.927 - 100.38	
1 kHz	999.9 - 1000.1	999.99		0.985 - 1.0019	
10 kHz	9.999 - 10.001	9.999		9.8 - 9.9991	
100 kHz	99.99 - 100.01	99.999			
200 kHz	199.98 - 200.02	199.99			

Test Signal Level (1kHz):					
Signal Level	Test Limits	ST2832 Result		ST42 Result	
20 mVrms	16.00 - 24.00	20.148			
0.1 Vrms	0.088 - 0.112	0.101645			
0.3 Vrms	0.268 - 0.332	0.30185			
1 Vrms	0.898 - 1.102	1.01643		0.3586Vrms	1Vpp
2 Vrms	1.798 - 2.202	2.02215			

DC Bias Level:					
Signal Level	Test Limits	ST2832 Result			
2V	1.975 - 2.025	2.0107			
5V	4.945 - 5.055	5.0045			

Resistance Measurements (Test Parameters Level: 1Vrms, Range: Auto, Speed: Slow):					
100Hz Resistance Measurement:					
Range		ST2832 Result		ST42 Result	
1 Ω		0.99688		1.007	
10 Ω		10.0018		10	
31.6 Ω		31.6035		31.6	
100 Ω		99.7542		100	
316 Ω		316.505		315.7	
1 kΩ		998.308		1	
3.16 kΩ		3.17482		3.161	
10 kΩ		10.0441		9.998	
31.6 kΩ		32.3962		31.59	
100 kΩ	TH2830: 100.013	49.5052		100	

1 kHz Resistance Measurement:					
Range		ST2832 Result		ST42 Result	
1 Ω		0.99688		1.006	
10 Ω		10.0017		10.01	
31.6 Ω		31.6025		31.6	
100 Ω		99.7569		100	
316 Ω		316.388		315.7	
1 k Ω		997.555		1	
3.16 k Ω		3.16782		3.161	
10 k Ω		6.78268		9.998	
31.6 k Ω		31.6672		31.59	
100 k Ω	TH2830: 100.013	67.6866		100	

10 kHz Resistance Measurement:					
Range		ST2832 Result		ST42 Result	
1 Ω		0.99682		1.005	
10 Ω		10.0016		10.01	
31.6 Ω		31.6023		31.63	
100 Ω		100.023		100	
316 Ω		316.496		315.7	
1 k Ω		1.00018		1	
3.16 k Ω		3.16848		3.161	
10 k Ω		9.99799		9.999	
31.6 k Ω		31.6791		31.61	
100 k Ω	TH2830: 100.005	78.2236		99.96	

100 kHz Resistance Measurement:					
Range		ST2832 Result			
1 Ω		0.99531			
10 Ω		9.992			
31.6 Ω		31.5727			
100 Ω		99.9585			
316 Ω		316.642			
1 k Ω		1.00014		100K:	
3.16 k Ω		3.17363		TH2830: 99.8795	
10 k Ω		9.86835		ST2830: 99.1825	
31.6 k Ω		31.3286		ST2832: 98.1972	

200 kHz Resistance Measurement:					
Range		ST2832 Result			
1 Ω		0.99092			
10 Ω		9.96311			
31.6 Ω		31.4825			
100 Ω		99.7601			
316 Ω		317.02			
1 k Ω		999.418			
3.16 k Ω		3.18742			
10 k Ω		10.0834			
31.6 k Ω		29.7674			
100 k Ω		91.5881			

Capacitance Measurements (Upper Value: Capacitance (Cp), Lower Value: Dissipation Factor (D)):					
1 kHz Capacitance Measurement					
Range	Tolerance:	ST2832 Result		ST42 Result	
1 pF	0.1 pF				
10 pF	1%				
100 pF	1%				
1000 pF	1%				
0.01 μ F	1%				
0.1 μ F	1%				
1.0 μ F	5%				
10 μ F	5%				
100 μ F	10%				

20 Hz Capacitance Measurement					
Range	Tolerance:	ST2832 Result			
1000 pF	1%				
0.01 µF	1%				
0.1 µF	1%				
1.0 µF	5%				

100 Hz Capacitance Measurement					
Range	Tolerance:	ST2832 Result	ST42 Result		
1000 pF	1%				
0.01 µF	1%				
0.1 µF	1%				
1.0 µF	5%				

10 kHz Capacitance Measurement					
Range	Tolerance:	ST2832 Result	ST42 Result		
1000 pF	1%				
0.01 µF	1%				
0.1 µF	1%				
1.0 µF	5%				

100 kHz Capacitance Measurement					
Range	Tolerance:	ST2832 Result			
1 pF	0.1 pF				
10 pF	1%				
1000 pF	1%				
0.01 µF	1%				
0.1 µF	1%				
1.0 µF	5%				

200 kHz Capacitance Measurement					
Range	Tolerance:	ST2832 Result			
1 pF	0.1 pF				
10 pF	1%				
1000 pF	1%				
0.01 µF	1%				
0.1 µF	1%				
1.0 µF	5%				

Step Dissipation Factor (Cs=1nF,1kHz):					
Range	ST2832 Result				
0.0001					
0.0005					
0.001					
0.005					
0.01					
0.1					
1					

1 kHz Inductance Measurement:					
Range	ST2832 Result				
100 μH					
1000 μH					
10 mH					
100 mH					
1000 mH					

DCR Measurement:					
Range	ST2832 Result				
1 Ω		0.99945			
10 Ω		10.0021			
100 Ω		100.026			
1 kΩ		1.00012			
10 kΩ		9.99736			
100 kΩ		100.057			